

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A fuel cell having at least a membrane electrode assembly comprising an electrolyte membrane, a hydrogen electrode-side catalyst layer formed on one side thereof, and an air electrode-side catalyst layer formed on the other side thereof, in which a the porosity of the hydrogen electrode-side catalyst layer is made to be lower than a porosity that of the air electrode-side catalyst layer and a volume of pore space of the hydrogen electrode-side catalyst layer has a range of 1.0% to 3.0% of a total volume of the catalyst layer.

2. (Currently Amended) The fuel cell according to claim 1, wherein the hydrogen electrode-side catalyst layer and the air electrode-side catalyst layer each include ion-exchange resin and carbon carrier and a in which the weight ratio of ion-exchange resin to carbon carrier of the hydrogen electrode-side catalyst layer is made to be larger than the same a weight ratio of ion-exchange resin to carbon carrier of the air electrode-side catalyst layer so that the porosity of the hydrogen electrode-side catalyst layer is made to be lower than the porosity that of the air electrode-side catalyst layer.

3. (Currently Amended) The fuel cell according to claim 2, in which the weight ratio of ion-exchange resin to carbon carrier carriers of the hydrogen electrode-side catalyst layer is greater than or equal to 1.5:1 and less than 3.0:1 and the weight ratio of ion-exchange resin to carbon carrier carriers of the air electrode-side catalyst layer is greater than or equal to 0.4:1 and less than 1.5:1.

4. (Currently Amended) The fuel cell according to claim 2, in which the volume of pore space of the hydrogen electrode-side catalyst layer accounts for 1.0% to 3.0% of the

~~total volume of the catalyst layer and the volume of pore space of the air electrode-side catalyst layer has a range of accounts for 3% to 30% of the total volume of the catalyst layer.~~

5. (Currently Amended) A fuel cell having at least a membrane electrode assembly comprising an electrolyte membrane, a hydrogen electrode-side catalyst layer formed on one side thereof, and an air electrode-side catalyst layer formed on the other side thereof, in which a porosity of the hydrogen electrode-side catalyst layer is made to be lower than a porosity of the air electrode-side catalyst layer, wherein The fuel cell according to claim 1, in which the hydrogen electrode-side catalyst layer is allowed to contain contains an additive having a certain particle diameter sized to fill a plurality of voids in a carbon carrier included in the hydrogen electrode-side catalyst layer so as to lower the porosity of the hydrogen electrode-side catalyst layer, or less so that the porosity of the hydrogen electrode-side catalyst layer is made to be lower than that of the air electrode-side catalyst layer.

6. (Original) The fuel cell according to claim 5, in which the average particle diameter of the additive is less than or equal to 0.3 μm .

7. (Currently Amended) The fuel cell according to claim 5, in which ~~a~~the volume of pore space of the hydrogen electrode-side catalyst layer ~~has a range of accounts for~~ 1.0% to 3.0% of the total volume of the catalyst layer and ~~a~~the volume of pore space of the air electrode-side catalyst layer ~~has a range of accounts for~~ 3.0% to 30% of the total volume of the catalyst layer.

8. (Currently Amended) A fuel cell having at least a membrane electrode assembly comprising an electrolyte membrane, a sprayed hydrogen electrode-side catalyst layer formed on one side thereof, and a non-sprayed air electrode-side catalyst layer formed on the other side thereof, in which a porosity of the hydrogen electrode-side catalyst layer is made to be lower than a porosity that of the air electrode-side catalyst layer wherein The fuel cell according to claim 1, in which the hydrogen electrode-side catalyst layer is formed by

spraying a catalyst ink and the air electrode-side catalyst layer is formed by a transfer method so that the porosity of the hydrogen electrode-side catalyst layer is made to be lower than that of the air electrode-side catalyst layer.

9. (New) The fuel cell according to claim 2, in which the volume of pore space of the hydrogen electrode-side catalyst layer is 2% of the total volume of the catalyst layer and a volume of pore space of the air electrode-side catalyst layer is 30% of a total volume of the catalyst layer.